Study of ionospheric precursor using the DEMETER ELF data

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A decrease of electric field at the 1.7 kHz, i.e., VLF electromagnetic waves, within 4 hours before neighboring earthquake (EQ) with the magnitude of more than 4.8 was statistically shown through the data set of in-situ satellite measurement according to French groups. In this study, we apply the DEMETER ELF data to our previous analysis for VLF data. We apply this method to ELF data. Our preliminary analysis showed that the intensity of electromagnetic wave was enhanced around 700 Hz near the epicenter 40 hours before the earthquake.

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